

Tymshare, Inc. 1978 Annual Report

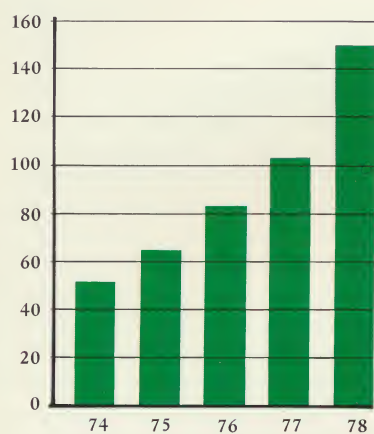


On the Cover:

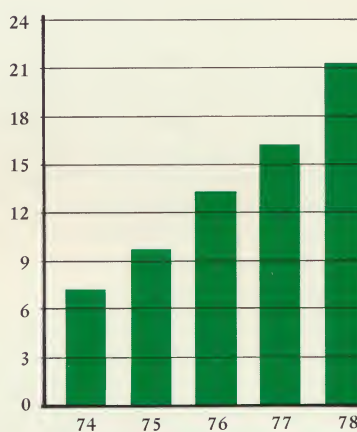
A different view into our business is seen by network planning and control specialists who are responsible for continuous reconfiguration of our 100,000-mile communications network to accommodate new nodes and increased data traffic. New nodes were smoothly integrated into the network at an average rate of two per week as monthly data flow through the network climbed above 12 billion characters heading into 1979. Tymshare's business—providing the means to move, manage, and use information effectively—can be viewed in many ways. In this annual report to our shareholders, the Company presents a look at Tymshare's business and continued success in terms of the major markets we serve. Efficient, reliable network operations lies at the heart of our services to our major markets of today and the future.

Five-Year Highlights

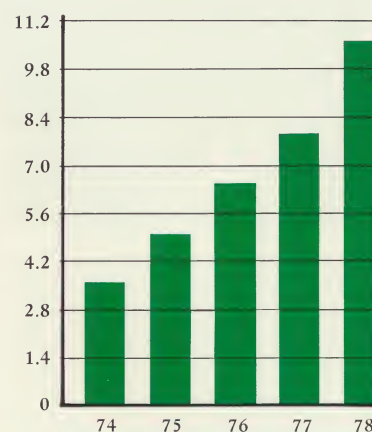
Revenue
in millions of dollars



Income From Operations
in millions of dollars



Net Income
in millions of dollars



	Year Ended December 31, (In thousands, except earnings per share)				
	1974	1975	1976	1977*	1978*
Revenue	\$ 52,602	\$ 64,412	\$ 81,837	\$101,174	\$149,559
Income from operations	7,197	10,006	13,559	16,503	21,318
Net income	3,638	5,094	6,713	8,008	10,594
Earnings per share					
Before extraordinary items	\$.86	\$ 1.19	\$ 1.55	\$ 1.82	\$ 2.31
Net income	\$.91	\$ 1.22	\$ 1.55	\$ 1.82	\$ 2.31

*Quarterly breakdowns of revenues and income for 1978 and 1977 are presented on page 25 in chart and tabular form.

To Our Shareholders:



I am pleased to report that in 1978 Tymshare made excellent progress, both in financial performance and in penetration of our target markets. We saw our revenue gains once again outpace the industry growth rate as our earnings reached new record levels.

A summary of 1978 financial results shows that:

- Tymshare's 1978 revenues reached \$149.6 million, a gain of 48 percent over the \$101.2 million achieved in 1977.
- Net income grew by 32 percent to \$10.6 million in 1978, equal to \$2.31 per share, compared with the 1977 figures of \$8 million, or \$1.82 per share.
- Shareholders' equity investment for 1978 rose slightly above \$53 million, an increase of approximately 33 percent over the \$40 million for 1977.

Our report to you this year talks chiefly about our major markets, those from which we derive the bulk of our revenues and which are receiving most of our attention and investment in product and service development, technical programs, and marketing effort. Ours is a very dynamic

business and, as our reports to you the past two years have attempted to show, Tymshare has been responding to this market environment with increasingly specialized products and services and an organizational structure best suited to managing and serving the evolving customer requirements we see in the marketplace.

We hope that with a better understanding of our key markets you will get a better picture of the Company, its business, and the future direction of our industry. Before we take you on a narrative tour of the marketplace for computer services today, let me summarize some of the significant events of 1978.

We successfully consummated two acquisitions in 1978 to complement our services for two of our more promising market sectors. Autotax, which had participated in the same market for computerized tax processing services as our Dynatax and Unitax operations, was purchased from The Research Institute of America in June. Medical Information, Inc., a Dallas-based firm providing specialized computing services to hospitals, became part of our Tymshare Medical Systems organization shortly after midyear.

Tymshare's involvement in the international market was expanded in April with the beginning of service into Japan through our affiliate there, Kokusai Tymshare. We now participate in all major overseas markets where demand for our services is well established, through our affiliates in the United Kingdom, Western Europe, and now, of course, in Japan.

The market for data and message communications services is probably the most dynamic of all market sectors we address. Several related events, including our own network technology announcement and the planned entry of AT&T into the data communications market, heightened interest in our Tymnet, Inc. public packet network services in 1978. In addition, Tymshare mounted a new effort focused on the

market for private, intracompany networks, using the same advanced technology being incorporated into the public TYMNET network. The trend toward distributed computing further accelerates demand for our network services.

Our penetration last year of the financial institution marketplace, the largest market segment within the computer services industry, benefited by the first full year of activity in processing credit card transactions through Tymshare Transaction Services, broader use of interactive services by banks, and additional services to investment firms. Tymshare products or services were used by approximately 1000 banks in 1978, as well as a growing number of savings and loan associations, credit unions, and investment institutions.

The majority of Tymshare's attention in 1978 was focused on the following major market sectors: the accounting profession, hospitals, government agencies, telephone and other utility firms, financial institutions, large companies which make up the nation's top 1000 firms, and the market for our



public communications service and private network systems. In addition, the international marketplace continues to grow in importance, as does our ability to serve the major centers of commerce in the mature nations overseas.

I was very pleased in mid-1978 to welcome J. Frank Leach, president and chief executive officer of Arcata Corporation, to our board of directors. Mr. Leach has had a distinguished and successful career and we are fortunate to have the benefit of his mature judgment and highly motivating influence.

As you know from our previous reports to you, Tymshare has been developing a more formal strategic planning capability over the past couple of years. This orderly process of evaluating logical extensions of our business and services into new, high-growth market sectors matured considerably in 1978. We see many future opportunities which take advantage of our principal strengths—problem-solving consultative expertise, uniquely effective software, and our established capabilities in data and message communications network technology.

While not pertinent to 1978, one event occurred recently that I would like to comment on. In February of this year, we received an offer from a major company not in our industry to purchase all of Tymshare's common stock at \$50.00 per share, "premised upon" the enthusiasm of Tymshare management and support of the Board of Directors for the proposed combin-

ation. After careful consideration of the terms of the offer, the Board of Directors unanimously rejected this acquisition proposal as not being in the best interests of the Company and its shareholders in light of the Company's performance and anticipated growth.

Tymshare management remains committed to the continued high performance and growth we have experienced since the Company was first founded. Credit for past achievements and the basis for projecting continued high expectations for Tymshare is, of course, mainly due to the nearly 3,000 dedicated people who now work at Tymshare. They are the principal resource on which we depend and their dedication and resourcefulness is unmatched in our industry. On their behalf, I want to express our appreciation to you, our shareholders, for your continued interest and support.



T. J. O'Rourke
President and Chairman of the Board

The Story Is in the Marketplace

Big Company Market

Big companies across some 40 different industry sectors have long represented the core of Tymshare's business. Companies ranging in size from roughly a quarter billion dollars in sales to the multibillion-dollar giants comprise the major market for Tymshare. Our support to large organizations ranges from top-level decision support systems through functional software for corporate finance, marketing, planning, personnel, and transportation applications.

Today, senior management people in the nation's largest and most complex organizations rely on Tymshare more than ever before to conduct the hour-by-hour, day-to-day business of their companies. Big companies have big information demands, urgent demands, and more complex structures than their smaller counterparts. Yet these same large companies also have more computing hardware and data processing expertise than smaller firms.

Why, then, have outside computing services become such a staple in

helping management run big, powerful, computer-rich organizations?

Fundamentally, management in large organizations recognizes where their dollars and efforts are best spent, and where they are not. Inhouse computing departments certainly perform a vital function. They typically handle the large volume of repetitive data required to prepare scheduled reports and process administrative paperwork which underlies the normal course of business in large companies.

Management increasingly realizes, however, that the development and rapid deployment of top-level decision support systems to meet the time-urgent demands for fast data collection, flexible analysis, and on-demand reporting is a highly specialized information environment. Meeting the dynamic, decision-oriented requirements of this volatile information situation is the special province of Tymshare.

We represent a unique combination of business consulting expertise, specialized information management and analysis software, and pervasive communications network capability. Even giant firms find it difficult, and in many cases uneconomic, to duplicate this capability for their exclusive use.

And why should they? Tymshare tools already exist which can be quickly tailored to fit unique customer requirements and then immediately implemented. The customer receives timely, economic solutions without the lengthy delays for system development. He also avoids the heavy investment in dollars, time, and scarce software development personnel which accompanies inhouse development programs.

Selling solutions to this large company market requires a firm understanding



of their problems through practical experience in business operations and all major management functions, as well as a thorough knowledge of the technological resources required to implement effective and economic system solutions. Such background is a prerequisite for Tymshare sales representatives, most of whom have advanced business degrees and several years experience in the business world. Sales representatives are supplemented in the field by applications and systems development personnel who work with the sales representative and the customer to devise the precise adaptation of our software to fit each application.

Applications solutions increasingly are being fitted to the specific needs of key management functions—marketing, finance, planning, personnel, and others—and even further refined to suit the peculiarities of different industries. There is growing demand in the marketplace to make the computerized system or service bend to the environment of the customer, rather than to impose on the customer the burden of adapting to the world of technology in order to derive benefits.

The key to Tymshare's continuing penetration of our dynamic, large-company marketplace lies in two factors: very powerful software



development tools which are widely applicable to many different types of companies and, secondly, applications specialists capable of adapting these software tools to produce applications software that is highly efficient for very specific functional or industry applications. In this way, Tymshare delivers "added value"—a fundamental rationale contributing to increased use of outside services.

For example, one of Tymshare's premiere tools is a general-purpose information management language designed to operate on our IBM computers. The first level of refinement is illustrated by the application-specific personnel system, PERS, for personnel administration and reporting functions of nearly any type of business or industrial firm. PERS represents considerable tailoring of the general information-management capability and is thus more efficient for the personnel application.

In 1978, however, Tymshare entered into yet a second level of specialization with PERS, undertaking even more tailored subsets of the product for personnel functions in target industry markets, such as hospitals and banks.

PERS is just one example of truly specialized software designed to be used by entire classes of customers whose requirements are very similar, either in application characteristics, or industry environment, or both. RAILTRACK, designed in MAGNUM to track and report on rolling stock usage in larger firms, is another such special product implemented in 1978.

The trend in serving the large-company market is to identify situations for which prepackaged software products can be developed and carried to all prospects having similar industry, functional, or application characteristics. What will remain will be those circumstances for which no existing packaged solution is adequate and for which a unique system solution is the only sensible and cost-effective

answer. It is to meet this unique system development requirement that Tymshare has steadily expanded and upgraded its Consulting and Professional Services (CAPS) organization. CAPS performs systems design and development on a contract basis for very complex applications.

Computer Operations Division personnel of the Computer Services Group installed and placed on-stream several complete new timesharing computer systems, including our first IBM 3032 system, to meet the computing requirements of our growing remote services market.



Specialized Tymshare products, like PERS, offer immediate, cost-effective solutions for customers, dramatically cutting internal development time, cost, and staffing hurdles otherwise faced by even giant firms . . . increasing computing systems productivity at Tymshare spells economy of scale in our operations and assured value for every service dollar spent by our customers . . . management of international data network traffic amounting to more than 12 billion characters of information monthly is a 24-hour-per-day, seven-day-a-week assignment for national network control center professionals of Tymnet, Inc.

Communications Market

Communications is the lifeline of virtually all Tymshare services. The TYMNET network is the backbone delivery vehicle for our remote interactive and remote batch services to customers.

However, the sale of communications service, equipment, and entire networks to customers also represents a rapidly growing market which Tymshare addresses with increasing capability. Basically, we address this "pure" communications service market in two ways. One is through our common carrier subsidiary, Tymnet, Inc., which provides both data and message communications services over the public packet network, TYMNET. Secondly, our Tymshare Data Network Division sells complete intracompany networks to large organizations.

Tymnet serves Tymshare, still its largest user, and its other 150 or so customers in much the same way. User companies need to link their computers and terminals via a versatile, economic, and reliable network which provides a full range of technologically proven and advanced features not possible with standard telephone lines. Using TYMNET as the communications connection is almost always less costly than private leased lines or WATS, and provides other "value-added" features. These include automatic error detection and retransmission, centralized network management and control by Tymnet, and the ability to connect virtually any type of computer or low- or medium-speed terminal into the network. Such "value-added" features are possible only with

TYMNET's type of advanced design and technology.

Since its inception as a common carrier in April 1977, Tymnet, Inc. has experienced rapid growth and success in the marketplace and has increased both network coverage and network capabilities in response to the exploding demand for its public data and message services. TYMNET today serves more than 150 metropolitan areas in the United States through nearly 375 network nodes. Additional access is available currently from 22 overseas locations through agreements with the U.S. international record carriers and foreign communications administrations which have installed Tymnet equipment.

Tymnet's customer base increased more than 50 percent in the last year. Currently, more than twelve billion characters of information are handled monthly over TYMNET. Usage of Tymnet's OnTyme message service is showing steady growth, even though the installations of new OnTyme customers are being controlled until we complete the conversion of this service to new and more powerful message-switching computing systems. Following this conversion, the market for OnTyme appears limited only by Tymnet's ability to install and train new customers.

In 1978, the communications market reached new levels of maturity and user awareness of the substantial benefits of packet network service and technology. Tymnet was both a cause and a beneficiary of the new level of market realization of packet communications economy and flexibility.



Shortly after midyear, Tymnet introduced its Advanced Communications Technology (ACT), signaling a new generation of network communications features and flexibility. The main components of ACT are the new communications processor as the primary network node hardware, and its companion operating software. Dubbed the Tymnet Engine, the new processor was designed by Tymshare and is being produced by our own manufacturing and assembly personnel in California. The software, described as an Internally Switched Interface System (ISIS), allows several different communications processing functions to be run concurrently in the same node. With ISIS, new processes can be developed and implemented at any time without affecting any other process in the system.

ACT is the answer to problems of incompatibility posed by the wide diversity of equipment being linked to networks and the ever-changing communications protocols vital to accommodate different hardware and internetwork linkages.

The other key event in 1978 was external to Tymshare and Tymnet. It riveted the attention of the entire computing/communications market on packet communications and the nature of future services. At midyear, AT&T asked the Federal Communications Commission for permission to offer its proposed advanced communications service (ACS). In an instant, the market in which Tymnet and one other small competitor had been pioneering received widespread visibility, and validation.

What ACS proposes to offer several years hence is already substantially available on TYMNET, based on the incorporation of Tymnet's new ACT features.

There is little doubt that Bell, if indeed its ACS does eventually become a reality, will prove a formidable competitor. But Tymnet's present advantage in the marketplace, deployed technology, and proven experience bodes well for the future. Tymnet is well positioned to meet it in a market that has come alive and is clamoring for our proven capability.

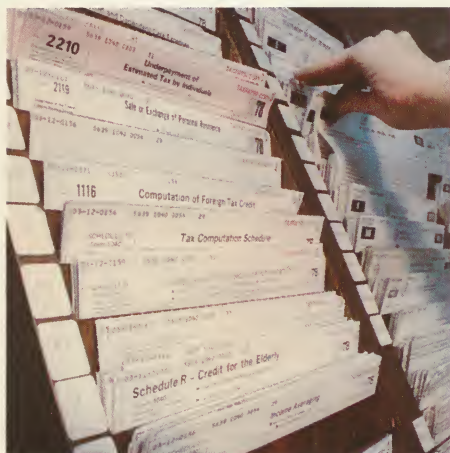
Tymshare began to leverage its expertise in network development and deployment by initiating a special marketing effort last year, through our Data Network Division, aimed at the emerging needs of large organizations for private networks to serve their internal data and message communications requirements.

Shortly after the first of this year, Tymshare announced its first major private network sale. We will install a 20-node network for TRW, Inc. Additional revenue is likely from additional equipment and support over the seven-year term of the contract. Several other private network contracts are expected to be signed during 1979.

Accounting Market

Of some 90 million federal income tax returns filed this year, approximately half were prepared by a third party. About 35 million of us consult an accounting professional at tax time and 10 million taxpayers receive third-party filing preparation assistance from commercial tax preparation specialists.

Professional accountants handling the 35 million returns represent the current potential market for computerized tax processing services such as Tymshare's Dynatax and Unitax offerings. In



People power represented by Tymshare's nearly 3,000 highly skilled employees, from product development to precision assembly experts, is the foundation resource for our continued success . . . more than a million tax returns were processed and prepared in the 1978 season for Dynatax and Unitax clients nationwide . . . the key to more efficient management and profitability for literally thousands of businesses here and overseas is a Tymshare terminal linked to our vast information resources over TYMNET.

1978, an estimated five million returns were processed by computer services such as ours and the trend toward computerized processing of returns is accelerating each year.

In 1978, more than 1.1 million returns were processed by Dynatax or Unitax in the 1978 tax season. In 1979, we estimate that our processing volume will approximate 1.5 million returns. This represents a healthy share of the total five million return market currently available and places us in a strong position to pursue the larger target of the 35 million third-party-prepared returns.

Our base of tax business was further enhanced in 1978 with the purchase of Autotax. The rate of conversion of former Autotax customers to our Dynatax service was very encouraging, exceeding our estimated conversion rate by almost 25 percent.

The tax processing application, of course, represents only one of the sectors of the overall accounting marketplace which Tymshare addresses. In addition to the thousands of accountants who rely on our tax services, several thousands more come to Tymshare for an increasingly wide range of computer services.

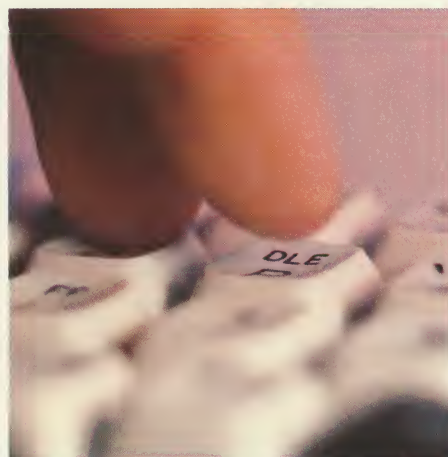
The menu of computing services we supply to the nation's accounting firms—from several of the giant Big Eight to the sole practitioner—covers all four general classes of accounting firm functions: taxation, management advisory services, firm administration, and auditing.

In addition to its Dynatax and Unitax services, Tymshare provides special systems and services for individual tax planning, a specific program for exempt foundation returns, access to the TYMQUOTE securities data base with current and historical data on more than 31,000 securities, and a program specialized for estate tax valuation of securities.

Applications in the management advisory services category call on Tymshare's expanded financial reporting system (FRS) for complete general ledger and earnings record requirements, and special tools for market research analysis and project management. In addition, use of our PERS system is sold to accounting firms for client personnel reporting and analysis. Tymshare tools also aid accounting firms in demographic analysis, pension fund accounting, budget planning and analysis, cash management, data base and information management, and financial modeling.

We also support our accounting clients in administrative applications, such as time reporting and billing, client alert systems, and with the accounting firm's internal budget planning and personnel administration and reporting.

The auditing function of accounting firms, which constitutes a major share of their work on behalf of clients, is currently served by several Tymshare analytical support tools—for general financial and statistical analysis, through portfolio analysis aids, to special tools for lease analysis functions. Tymshare also has begun focusing increased emphasis on addressing this



very important auditing function with new tools and services.

New in 1978 was the availability of the Tymshare/AICPA (American Institute of Certified Public Accountants) Program Library, a collection of software programs commonly used by the accounting profession. Only one other firm in our industry has been approved by AICPA to offer this software. Toward year-end, Tymshare also established a specialized service branch location in New York City as the focal point for our marketing and customer support to the Big Eight accounting firms.

The overall market for computing services in the accounting market has been growing at about 25 percent annually. Tymshare estimates that its growth rate in this market sector over the next five years will exceed that market growth rate.

Financial Market

Tymshare rendered some form of products or services to approximately 1000 financial institutions during 1978. Numbered among the institutions we serve are banks, savings and loans,



credit unions, and investment firms. We provide primarily four types of service: interactive timesharing services and remote computing systems for major banks across the nation; credit card transaction processing for more than 300 banks, S&Ls, and credit unions in the western region of the country; comprehensive software products for smaller banks which have their own inhouse computers; and services keyed to the needs of investment firms and corporate executives responsible for managing their firms' investments.

The banking community is an extremely important market sector for Tymshare. Banks spend more of their total budgets for electronic data processing on outside services than any industry, and banking's use of remote services is growing at more than 20 percent a year.

There are many reasons for this increasing reliance by banks on outside service organizations. Although banking is a mature industry, it is still growing faster than the general economy. Computerization in many forms is essential for banking to grow in an environment of increasing government intervention and scrutiny and competitive pressure. Fundamental changes are taking place in banking, such as interest-bearing checking accounts and the emerging presence of electronic funds transfer.

Larger banks were among the earliest users of computers. They are not only very advanced in their attitude toward and application of computer techniques, but have long recognized the value and rationale for going outside for computer-related services and support, particularly interactive timesharing systems.

Tymshare has built a national base of business among major banks, today ranking among the major suppliers of remote computing systems and

services to large banks. We serve just about every key bank department. Our heaviest usage has been in the lending and credit department and in the personnel functions, followed closely by the controller's office and leasing function. International departments of the top 100 banks and some 200 foreign banking operations also are a prime target for a new information management system designed to help monitor, evaluate, and control large-bank international activities. Last year also saw additional penetration into the marketing, trust, planning, and investment functions of banks.

Our services range from general timesharing to cooperative development of complex interactive systems. Some of our banking clients work with us to implement systems initially for their own use and, subsequently,



Money, symbol of the financial market, is counted, tracked, invested, spent, and recorded by some 1,000 financial institutions with the aid of Tymshare's sophisticated computer services . . . lifeless data recorded on magnetic tapes and disks becomes lifeblood decision information in the context of a Tymshare-developed management decision support system . . . transactions initiated by nearly eight million credit card users daily are funnelled through Tymshare Transaction Services in San Francisco, the center of activity for serving more than 300 financial institutions in 13 western states.

make these systems available over Tymshare's network to other banks with similar requirements.

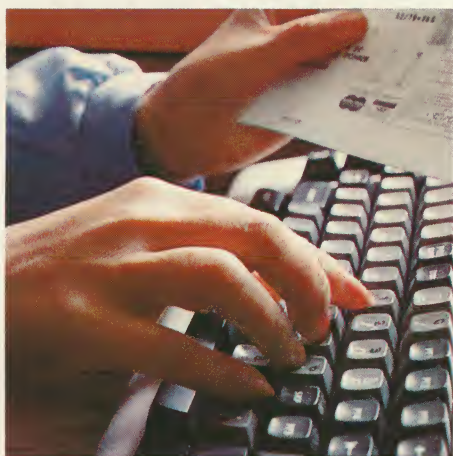
Hundreds of smaller banks, ranging in size from roughly \$35 million to \$350 million, used Tymshare software in 1978 for inhouse data processing on their own computers. Originally developed by a bank for its own use, these banking software products are marketed by Tymshare throughout most of the country under an agreement with the original developer.

Tymshare also began to make its mark in the market for credit card processing in 1978, the first full year of activity for Tymshare Transaction Services, successor to the Western States Bankcard Association operations acquired by the Company in October 1977. Developments in TTS were fast and aggressive once Tymshare took hold of this organization.

Our first priority was to stabilize the customer base we inherited from WSBA, whose charter and technological limits constrained its ability to respond to new service requirements of WSBA member banks. The second objective was to start building the organization and product line that would ensure Tymshare's long-term success in this market.

Achievements in 1978 resulted in strong growth in the customer base and range of services, an improved operating cost picture, and a solid basis for long-term expansion beyond the traditional geographic and institutional limits of earlier WSBA years.

An aggressive and professional marketing organization was created where none had existed, as part of an overall organizational restructuring into six functional divisions. Computer processing capacity also was considerably expanded, with the installation of a large-scale Amdahl system connected to Tymshare's communications network. A major portion of the Authorization Center operation was relocated to the Los



Angeles area, where a majority of authorization activity takes place, thereby increasing efficiency and reducing communications costs. Better space utilization at TTS headquarters also further reduced costs.

The new thrust of the credit card processing operation produced the best and most measurable yield of all—renewed customer confidence, reflected in new, long-term contracts from some half dozen major clients who recommitted for an expanded range of services for periods of from two to four years. In addition, some 30 new banks were added to the customer roster; we made a significant entry into the credit union sector with 15 clients; and we began providing services to our first customers in the savings and loan field.

Future progress, into new geographic markets with existing and new services, will be fueled by exciting new developments such as the automatic authorization digital telephone terminal tested in 1978 and scheduled to be deployed to several hundred locations in 1979. Tymshare also is pursuing other opportunities related to automatic teller machine networks and electronics funds transfer systems.

Tymshare also expanded in the investment sector of the financial marketplace in 1978, wherein we serve stock brokerage firms, investment management companies, and corporate treasurers responsible for investment funds. We also sell to bank officers with such responsibilities.

Last year we introduced PERVAL, a timesharing service which aids in the measurement and evaluation of fund management performance, and the Value Line data base of information on some 1600 companies. Heavy usage is expected in 1979 and future years from these new products. Among Tymshare's existing products and services for investment applications is TYMQUOTE, offered for more than four years. This is a data base of stock market statistics on more than 31,000 securities and is widely used as a source of information for several other applications. PERVAL, for example, draws on data from TYMQUOTE for its fund management functions. Other Tymshare products addressing the investment applications market sector include tools for investment research for stock broker preparation of client reports on selected securities, and for evaluation of stock portfolios for estate purposes.

The overall financial institution market is huge, including more than 90,000 banks, savings and loans, and credit unions, as well as nearly 20,000 security and commodity brokers and holding and investment companies. As a composite market, it is the largest user of computer services and is growing at a rate that assures continued success for those, like Tymshare, who are committed and able to serve its diverse requirements.

Hospital Market

The medical industry market expended nearly a half billion dollars in 1978 for outside computer services, with approximately \$270 million being spent by hospitals, the sector which Tymshare currently serves. Future targets for Tymshare's expansion beyond hospitals include private physicians, group practices, nursing homes, and clinics.

Our entry into the hospital computer services market came with the mid-1976 acquisition of Medical Data Systems, Inc., whose business base was centered in the northeast. In the middle of 1978, Tymshare brought Dallas-based Medical Information, Inc. into the Tymshare Medical Systems organization.

Through the combining of resources and effort from the two acquired companies and Tymshare's technical and marketing strengths, the Company has risen from a noncompetitor to a prominent supplier of shared computer services in the field. Starting with the MDS base of some 30 hospitals in 1976, Tymshare now provides services to more than 120 hospitals in more than 20 states in the nation.

Forecasters see a 16-percent rate of growth in computer services usage in the medical industry through 1983, with a much higher, 24-percent rate of growth in that period in expenditures for remote computing services.

Tymshare Medical Systems provides three families of products to hospitals. Financial systems, spanning patient accounting, general ledger, and reporting applications, form the base of our current services. Online patient care systems such as TYMCARE,

providing patient charge collection and interdepartmental communications among key hospital departments, represent the next level of product advancement. Remote timesharing services is the third.

Use of Tymshare's remote services for financial and personnel applications has been minimal to date, but the Tymshare Medical Systems marketing program for 1979 will place increasing emphasis on this service offering.

Use of the traditional financial and accounting services is expected to continue to grow at a moderate rate. Demand for systems such as TYMCARE are seen as having tremendous growth potential, as does the use of remote services for management, particularly among the more progressive institutions.

Automation came late to hospitals, spurred by Medicare in the mid-sixties. The hospital market is characterized by a high labor content, rapidly rising costs, increasing government involvement, and very vocal insistence on improved patient care. All of these factors bear favorably on the future for



computer services in this field. Also, the number of "for-profit" hospitals is on the rise. Direct fee billing by physicians is also increasing. Expanded use of outpatient facilities, in an effort to minimize in-hospital stays, also will spur use of our services.

Tymshare is in an excellent position to improve its position in the hospital/medical shared services market. We have the resources and knowledge to be a leader in technology. We are moving with prudent speed to establish ourselves as a truly national supplier—with the existing advantage of an in-place national marketing force to complement our specialized hospital services sales force. And we intend to satisfy hospital management's obvious desire to deal with a single vendor for the full range of services.

The combining of experienced industry experts in acquired companies with our own development personnel has been a winning formula in several markets, and this one is no exception. We are committed to being a leading force in the medical market for our services, backing this commitment with the investment and resources appropriate to capitalize on the tremendous opportunity which this market presents.

Manufacturing Market

Tymshare's initial approach to the huge manufacturing market has been to isolate on the 8,000 to 10,000 smaller firms which range in size from approximately \$5 million to about \$25 million in sales. Such firms generally have no inhouse computing capability and need cost-effective means of automating their mainstream data processing functions, such as financial and accounting applications, inventory



control, shop floor control, order entry and billing, and cash management.

Requirements for serving this market include a service based on software that is precisely tailored to this type and size firm, and one that requires minimum initial dollar outlay but provides immediate results. Such a customer also must be able to count on a high level of initial support and continuing service enhancement expertise from the service supplier.

In this market environment, Tymshare found ready acceptance in 1978 of our MANUFACTS system, designed with our proprietary MAGNUM data base management language. MANUFACTS has evolved over the past couple of years as the successor to our earlier MAGNUM OPUS manufacturing applications software.

Implemented in several user firms during 1978, MANUFACTS is initially available as a specialized remote computing service for the small manufacturer, giving such a firm immediate benefits of computerization with low risk, total systems support, and low cost. MANUFACTS performs all the traditional data processing functions in a way that is well suited to the small

manufacturer. The only equipment required is a standard data terminal.

MANUFACTS software can be provided later on a Tymshare-supplied inhouse minicomputer system as the user's growth and service costs indicate this as a better alternative. Since the software is designed to be compatible with either a remote or inhouse computing mode, this conversion can be accomplished with no disruption in the processing of user applications.

Initial marketing of MANUFACTS in 1978 was concentrated on the west coast through a specialized marketing branch dealing exclusively with this effort.

Government Market

The government market, particularly the federal sector, has been a highly volatile one for computer service companies. Programs requiring outside services tend to appear and fade with shifts in policy and changes in political climate. Also, until recently, a large portion of government services business had been concentrated with a few major vendors, who relied substantially on government revenues. Within the past couple of years, regulations and policies have changed somewhat to provide a more competitive environment, with attempts also to simplify procurement procedures.

In this climate, Tymshare's penetration of the federal government sector has shown a steady increase year to year. In 1978, we also saw a healthy increase in our business base from state and local governments, a sector now growing somewhat faster than the federal marketplace. Marketing to state and local governments is managed by a specialized branch office.

Government clients are heavy users of our TYMCOM-370 services, utilizing our premiere information management and analytical tools for a wide range of applications. The overall use of Tymshare remote services by government clients has been growing at a rate that exceeds the current rate of growth predicted for government use of computer services industrywide.

Government marketing is a difficult and complex process, involving long



Committed and moving to enhance its already strong position in the hospital shared computer services market, Tymshare Medical Systems is a solid example of the Company's aggressive moves into new industry markets . . . MANUFACTS aids a firm producing complete, clean air workstations with its overall management and production information control and data processing . . . air and highway traffic safety programs, a major preoccupation of federal transportation officials, are supported by Tymshare government systems and service professionals.

selling cycles, extensive proposal effort, and generally lower profit margins than is characteristic in commercial markets. Tymshare did some organizational tuning in 1978 to improve its sales program for government.

All federal, state, and local government marketing is now directed from a new national government marketing region reporting directly to the vice president of our Information Services Division. This change is designed to improve the span of control over all government-related marketing situations throughout the country and concentrates responsibility through our most knowledgeable government marketing management in Washington, D.C. Elevating the function in the organization is expected to yield faster response to opportunities by virtue of a shorter decision path and greater visibility for the government program.

Our considerable business with the Department of Transportation in Washington also led to creation last year of a specialized marketing branch concentrating solely on DOT applications and opportunities.



Utilities Market

The utilities industry is composed primarily of telephone and power companies. Utility firms were the object of Tymshare's first industry-focused marketing effort, launched by the Company in the early 1970s. Until 1978, the bulk of business from this industry came from Bell System companies and major units of AT&T.

The Bell System component of the utilities market alone has been growing at more than 30 percent annually in its use of outside computer services. Tymshare is one of the leading computer services suppliers to telephone companies.

Our work with Bell has covered a wide range of applications over the years: complex office management and reporting systems; central office equipment estimating systems that aid in economic analysis related to improvements, changes, and construction of new facilities; portfolio analysis; residential market studies; PBX maintenance scheduling and trouble history reporting; budgeting and planning applications; personnel administration and government reporting; and work measurement/productivity analysis, to name a few.

Significant changes are under way within the Bell System, resulting in expanded opportunities for Tymshare to support the increasingly marketing-oriented posture which Bell companies are assuming. Responding to this environment, Tymshare worked very closely over the past year with one of the largest Bell companies to design and implement the first stages of an Integrated Marketing Information System (IMIS) capable of collecting, evaluating, and reporting on all key



functions relating to telephone company marketing and sales programs. Although initially aimed at Bell companies, this marketing decision support system also should hold great appeal for independent telephone companies.

In 1978, Tymshare established a new national utility industry marketing region with a broader scope and greater emphasis on marketing to gas and electric utilities and independent telephone companies. The base of business outside the Bell System showed significant gains during the year. The new UIM region focuses the expertise of what is probably the largest specialized marketing and support group in our industry on this rapidly growing market.

Typical of the applications for nontelephone utility firms are those involved with resource planning and scheduling, tracking of power distribution among power companies, and systems which assist in uncovering theft of service in situations involving disconnection of utility company meters.

International Market

Tymshare provides its services overseas through joint venture affiliates operating in the United Kingdom, Western Europe, and Japan. CEGI-Tymshare (C-T), jointly owned by Tymshare and Credit Lyonnais, one of the largest French banks, serves France, Holland, Belgium, and Switzerland. Tymshare owns 45 percent of C-T, which has been operating since 1969. Unilever, Ltd. is our partner in our London-based affiliate doing business as Tymshare U.K., Ltd., of which Tymshare owns 66 percent. In January 1977, the company's affiliate in West Germany, Taylorix-Tymshare GmbH (T-T), began operations in Frankfurt and has since expanded into Stuttgart and Dusseldorf. Taylorix is a highly respected West German services company. Tymshare is the majority owner of T-T, with 65 percent ownership.

Tymshare's most recent international affiliate, Kokusai Tymshare, Ltd., started operations in April 1978. Marubeni Corporation, Japan's third largest trading company, is our joint venture partner in this Tokyo-based company, of which Tymshare holds 45 percent ownership.

Also in 1978, Tymshare increased its investment position in SLIGOS, S.A., one of France's leading computer service bureaus, from 11 to 20 percent by exercising the conversion features of a \$1.5 million note.

Tymshare sells its remote computing services in Canada through its affiliate, Tymshare Canada (1977), Ltd., which is based in Toronto. TYMNET, the common carrier packet network operated by our Tymnet, Inc. subsidiary, provides access to U.S. data bases and computers from some 55 Canadian cities, as well as from 22 overseas countries.

The highly developed European countries, Canada, and Japan are very receptive markets for sophisticated, high-technology products and services such as those offered by our affiliates. They have good basic communications facilities, represented by telephone services, within the countries and between all of these countries and the United States. Estimated rate of annual growth in the European market for computer services through 1982 is projected at about 12 percent, somewhat slower growth than in the United States. Data for Japan shows that use of computing services there

has risen at about a 19 percent rate during the past five years. We see continuing growth for our services in all our present markets well into the future.

Typically, services and application products are developed by Tymshare in the United States and then made available to our affiliates for sale in their markets. There also is potential for certain applications originally developed by our overseas affiliates to be marketed by Tymshare's U.S. organization. In addition, there are certain applications which we develop for our multinational clients, such as for financial consolidations, which should have increasing international potential.

Competition internationally varies from country to country, with overseas banks and even some government organizations providing computer services as a business. Some of the major computer manufacturers also have very active service businesses overseas. Increasing international competition seems likely also from several of the same U.S. computer services vendors with which Tymshare competes successfully in this country.

The current market for our services in other areas of the world, such as Third World countries, is far less advanced than in Europe and Japan. The characteristics of these markets are very different from those of our established overseas markets, and indeed vary widely from one area to another. We are continuously monitoring other areas of the world as to market readiness and appropriate business and technical considerations regarding market entry and timing.



Tymshare has become increasingly involved in precision, custom component and equipment assembly and manufacturing to assure that operational hardware meets our rigid performance specifications . . . services provided to the nation's utility firms, predominantly telephone companies in the past, are meeting with widening acceptance and being rapidly broadened to appeal to the full range of companies in the utilities industry . . . Japan, site of our most recent thrust into the international marketplace, represents a large and fast-maturing market for our services through our affiliate there, Kokusai Tymshare, Ltd.

Tymshare, Inc. and Subsidiaries
Consolidated Balance Sheets

December 31, 1978 and 1977

Assets

	1978	1977
	(In thousands)	
Current assets:		
Cash	\$ 3,480	\$ 1,688
Certificates of deposit	—	2,200
Accounts receivable, less allowance of \$1,300,000 in 1978 and \$950,000 in 1977 for doubtful accounts	31,316	21,504
Inventories (Note 1)	6,532	4,444
Prepaid expenses and deposits (Notes 1 and 6)	1,892	2,511
Total current assets	<u>43,220</u>	<u>32,347</u>
Property and Equipment, at cost (Notes 1 and 4):		
Land and buildings	1,869	1,457
Computer systems	46,457	38,955
Terminal and communications equipment	22,619	15,436
Purchased software	1,345	721
Furniture, fixtures, and other equipment	5,881	4,359
Leasehold improvements	5,890	4,720
	84,061	65,648
Less—Accumulated depreciation and amortization	<u>(32,696)</u>	<u>(27,040)</u>
	<u>51,365</u>	<u>38,608</u>
Other assets (Notes 1 and 2):		
Cost in excess of net tangible assets acquired	4,872	3,610
Investment in affiliates	5,405	4,854
Deferred charges	2,299	3,014
	<u>12,576</u>	<u>11,478</u>
	<u>\$107,161</u>	<u>\$82,433</u>

The accompanying notes are an integral part of these balance sheets.

Liabilities

	1978	1977
	(In thousands)	
Current Liabilities:		
Notes payable to banks, unsecured (Note 3)	\$ 600	\$ 2,000
Current portion of long-term debt	1,201	1,085
Current portion of obligations under capital leases	1,775	2,304
Accounts payable	11,636	8,751
Accrued liabilities	5,613	3,275
Accrued income taxes (Note 6)	1,520	3,720
Total current liabilities	<u>22,345</u>	<u>21,135</u>
Deferred income taxes and credits (Note 6)	<u>5,951</u>	<u>3,191</u>
Long-term debt, net of current portion (Note 3)	<u>22,928</u>	<u>14,019</u>
Obligations under capital leases, net of current portion (Note 4)	<u>2,813</u>	<u>4,031</u>
Commitments (Note 4)		
Shareholders' investment (Notes 2 and 5):		
Preferred stock, \$10 par value:		
Authorized—2,000,000 shares, none issued	—	—
Common stock, no par value:		
Authorized—10,000,000 shares		
Outstanding—4,504,583 shares in 1978 and 4,347,774 shares in 1977	19,146	16,673
Retained earnings	<u>33,978</u>	<u>23,384</u>
	<u>53,124</u>	<u>40,057</u>
	<u>\$107,161</u>	<u>\$82,433</u>

Tymshare, Inc. and Subsidiaries
Consolidated Statement of Income

For the Years Ended December 31, 1978 and 1977

	1978	1977
	(In thousands, except earnings per share)	
Revenue from services and sales	<u>\$149,559</u>	<u>\$101,174</u>
Costs and expenses:		
Operating expenses and cost of sales	74,141	46,950
Selling, general and administrative	45,876	32,461
Technical development	<u>8,224</u>	<u>5,260</u>
	<u>128,241</u>	<u>84,671</u>
Income from operations	21,318	16,503
Interest expense , less interest income of \$403,000 in 1978 and \$169,000 in 1977	<u>1,924</u>	<u>695</u>
Income before provision for income taxes	<u>19,394</u>	<u>15,808</u>
Provision for income taxes (Note 6):		
Federal	7,365	6,450
State	<u>1,435</u>	<u>1,350</u>
	<u>8,800</u>	<u>7,800</u>
Net income	<u>\$ 10,594</u>	<u>\$ 8,008</u>
Earnings per share (Note 7)	<u><u>\$2.31</u></u>	<u><u>\$1.82</u></u>

The accompanying notes are an integral part of this statement.

Tymshare, Inc. and Subsidiaries

Consolidated Statement of Shareholders' Investment

For the Years Ended December 31, 1978 and 1977

	<u>Common Stock</u>		<u>Retained Earnings</u>	<u>Total</u>
	<u>Shares</u>	<u>Amount</u>		
	(In thousands)			
Balance, December 31, 1976	4,205	\$15,109	\$15,376	\$30,485
Sale of common stock:				
Employee stock option plans	58	520	—	520
Employee stock purchase plan	34	542	—	542
Income tax benefit resulting from early dis- position of shares issued under stock options	—	114	—	114
Issuance of common stock upon exercise of warrants	51	388	—	388
Net income	<u>—</u>	<u>—</u>	<u>8,008</u>	<u>8,008</u>
Balance, December 31, 1977	4,348	16,673	23,384	40,057
Sale of common stock:				
Employee stock option plans	50	517	—	517
Employee stock purchase plan	61	950	—	950
Income tax benefit resulting from early dis- position of shares issued under stock options	—	84	—	84
Shares issued in acquisition of Autotax, Inc.	45	900	—	900
Other	1	22	—	22
Net income	<u>—</u>	<u>—</u>	<u>10,594</u>	<u>10,594</u>
Balance, December 31, 1978	<u>4,505</u>	<u>\$19,146</u>	<u>\$33,978</u>	<u>\$53,124</u>

The accompanying notes are an integral part of this statement.

Tymshare, Inc. and Subsidiaries

Consolidated Statement of Changes in Financial Position

For the Years Ended December 31, 1978 and 1977

	1978	1977
	(In thousands)	
Working capital provided from (used for):		
Net income	\$10,594	\$ 8,008
Add (deduct) items not requiring the use of working capital:		
Depreciation and amortization	10,874	7,800
Deferred income taxes and deferred tax credits	2,760	831
Increase in equity in earnings of affiliates	(634)	(11)
Working capital from operations	23,594	16,628
Increase in long-term debt:		
Related to acquisitions	673	6,436
Borrowings (reductions) net	7,018	(900)
Sales of common stock	1,467	1,450
Issues of stock related to acquisitions	922	—
Other equity transactions	84	114
Additions to property net:		
Related to acquisitions	(1,829)	(8,054)
Computer systems	(10,050)	(3,204)
Terminal and communications equipment	(7,640)	(4,838)
Other	(3,354)	(1,428)
Increase in cost in excess of net tangible assets acquired	(1,333)	(171)
Decrease (increase) in deferred charges, net	111	(2,903)
Increase in investment in affiliates	—	(325)
Net increase in working capital	<u>\$ 9,663</u>	<u>\$ 2,805</u>
Working capital increase represented by:		
Increase (decrease) in current assets:		
Cash and certificates of deposit	\$ (408)	\$ 1,219
Accounts receivable	9,812	6,791
Inventories	2,088	1,770
Prepaid expenses and deposits	(619)	425
Decrease (increase) in current liabilities:		
Notes payable	1,400	(1,600)
Current portion of long-term debt and capital leases	413	679
Accounts payable	(2,885)	(4,100)
Accrued liabilities	(2,338)	(774)
Accrued income taxes	2,200	(1,605)
Net increase in working capital	<u>\$ 9,663</u>	<u>\$ 2,805</u>

The accompanying notes are an integral part of this statement.

Tymshare, Inc. and Subsidiaries
Notes to Consolidated Financial Statements

December 31, 1978

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Consolidation

The consolidated financial statements include the accounts of Tymshare, Inc. and its majority-owned subsidiaries after elimination of intercompany accounts and transactions. The minority interests in two foreign subsidiaries are not significant in amount.

The investments in minority-owned affiliates are accounted for on the equity method and the Company's share of the affiliates' earnings is included in revenues. The excess (\$3,327,000) of the investment in affiliated companies over the underlying equity in net assets acquired is being amortized over 40 years.

Inventories

Inventories are stated at the lower of cost (first-in, first-out) or market and consist of computer parts and equipment, technical manuals, and tax preparation and other data processing supplies.

Software Development

The cost of software developed by the Company is charged to expense as incurred. Purchased software is capitalized and amortized over its estimated life.

Depreciation and Amortization

Depreciation and amortization are provided generally on the straight-line method, using the following estimated useful lives:

Buildings	10 to 40 years
Computer systems	3 to 10 years
Terminal and communications equipment	3 to 7 years
Purchased software	2 to 6 years
Furniture, fixtures, and other equipment	3 to 10 years
Leasehold improvements	Life of lease

Maintenance and repairs are charged to expense as incurred. The cost of renewals or betterments that increase the useful life of the property is capitalized and depreciated over the estimated remaining useful life of the property. The net gain or loss on property retired or otherwise disposed of is credited or charged to income, and the asset cost and related accumulated depreciation are removed from the accounts.

Cost in Excess of Net Tangible Assets Acquired

Costs associated with acquisitions in 1971 and thereafter are being amortized generally over 40 years; costs (\$1,739,000) associated with acquisitions prior to 1971 are not being amortized.

Income Tax Preparation Services

The Company's income tax preparation services are seasonal with most of the revenue being earned in the months of February through April of each year. Certain direct costs associated with the income tax preparation services are deferred and charged against income during the months these revenues are earned.

Segment Information

The Company operates in the computer service industry. Its predominant business is to provide a wide range of computer services for the access, interpretation, and use of information by the customer through a variety of methods using a combination of input and output devices.

2. ACQUISITIONS AND INVESTMENTS

Acquisitions in 1978

During 1978, the Company acquired Autotax, Inc. for 45,455 shares of the Company's common stock and Medical Information, Inc. for \$1,907,000. In addition, the Company may issue additional shares based upon Autotax, Inc.'s gross receipts during the two annual periods ending April 30, 1979 and 1980. Both acquisitions were accounted for as purchases and the cost in excess of net tangible assets acquired of approximately \$1,300,000 has been capitalized and is being amortized. The operating results of the acquired companies are included in the consolidated financial statements beginning with the third quarter of 1978. If these acquisitions had taken place at the beginning of 1977, the effect upon the results of operations for 1977 and 1978 would be insignificant.

Acquisition in 1977

In October 1977, the Company acquired the credit card processing operations and certain assets of Western States Bankcard Association (WSBA) for \$219,000 and the assumption of certain liabilities. The acquisition was accounted for as a purchase and the cost in excess of net tangible assets acquired of approximately \$171,000 has been capitalized and is being amortized.

In connection with the credit card operations, the Company entered into separate credit card processing agreements with member banks of WSBA, whereby the Company is obligated to pay the banks the vested portion of \$3,020,000 in October 1981. A bank's vested portion of this amount is based upon the length of time the bank continues to use the credit card processing services through September 30, 1981. As security for payment, the Company has purchased a certificate of deposit and placed it in trust for WSBA. The cost of the credit card agreements is included in deferred charges and is being amortized over five years.

The results of the acquired operations are included in the consolidated financial statements since October 1, 1977. Revenues from the acquired operations, were approximately \$6,100,000 and \$25,200,000, in 1977 and 1978, respectively, with no significant effect upon net income.

3. BANK LINES OF CREDIT AND LONG-TERM DEBT

Bank Lines of Credit

The Company has separate unsecured lines of credit with seven banks which expire from March 1979 through September 1980. At December 31, 1978, the unused portion of the lines was \$62,700,000, including \$48,300,000 which the Company can convert to term loans. The Company is required to maintain a compensating balance, which amounted to \$310,000 at December 31, 1978, under one of the lines. The lines provide, among other conditions, that certain financial ratios be maintained by the Company. The Company was in compliance with all financial ratio requirements at December 31, 1978.

During 1977, there were no short-term borrowings under the above lines of credit until December 1977, when \$2,000,000 was borrowed with interest at 7¾%. During 1978, the average month-end borrowings were \$4,458,000, maximum borrowings were \$8,900,000, the average interest rate was 9%, and the year-end balance was \$600,000. During December 1978, short-term borrowings of \$8,300,000 were converted to long-term debt.

Long-term Debt

The outstanding long-term debt at December 31, 1978 consisted of:

	<u>Amount</u> <u>(In thousands)</u>
Notes payable to banks, with interest rates varying from prime at December 31, 1978 to prime plus $\frac{1}{2}\%$ over the term of the notes	\$22,440
Obligation of \$3,020,000 to member banks of WSBA due in October 1981, plus interest at prime, less certificate of deposit of \$2,400,000	620
Other debt with interest rates of 6% to 9%	<u>1,069</u>
	24,129
Less—Current portion	<u>(1,201)</u>
	<u>\$22,928</u>

The future maturities of long-term debt as of December 31, 1978 are:

<u>Payable During</u>	<u>Amount</u> <u>(In thousands)</u>
1979	\$ 1,201
1980	4,173
1981	6,433
1982	6,619
1983	3,586
1984–98	<u>2,117</u>
	<u>\$24,129</u>

4. LEASES

In 1978, the Company retroactively changed its method of accounting for certain leases entered into prior to January 1, 1977 to comply with Statement of Financial Accounting Standards No. 13. The effect of the restatement was not significant to either retained earnings as of December 31, 1976 or net income for the year ended December 31, 1977. Consequently, such amounts have not been restated. At December 31, 1978 and 1977, \$10,710,000 and \$13,936,000, respectively, of equipment under capital leases has been included in computer systems in the accompanying consolidated balance sheets.

The Company leases computers, related equipment, and office and computer facility space for periods to 1992. Approximate future lease commitments under these leases as of December 31, 1978 are:

Years	Capital Equipment Leases	Operating Leases	
		Equipment	Facilities
	(In thousands)		
1979	\$2,034	\$1,634	\$ 4,230
1980	1,431	98	3,730
1981	830	86	3,040
1982	258	17	2,860
1983	—	3	2,300
1984-88	—	—	7,810
1989-92	—	—	3,450
Total commitments	4,553	<u>\$1,838</u>	<u>\$27,420</u>
Purchase options on equipment	855		
Amounts representing interest (6.1% to 13.6%)	(820)		
Present value of capital lease obligation	4,588		
Less—Current portion	(1,775)		
	<u>\$2,813</u>		

Rent expense for operating leases (including leases with terms of less than 12 months) was:

	1978	1977
	(In thousands)	
Equipment	\$ 8,088	\$5,474
Facilities	4,793	2,968
	<u>\$12,881</u>	<u>\$8,442</u>

5. COMMON STOCK

As of December 31, 1978 and 1977, the Company had reserved 563,080 and 673,750 shares of its common stock, respectively, for issuance under employee stock option and employee stock purchase plans. Options have been granted generally at 100% of the fair market value on the date of grant. However, certain stock option plans permit the Company to grant options at less than fair market value. Options are exercisable on a cumulative basis at various dates and expire five years from the date of grant.

At December 31, 1977, options for 264,770 shares were outstanding at prices ranging from \$5.75 to \$16.75 and aggregating \$3,512,000. During 1978, options for 50,259 shares were exercised at prices ranging from \$5.75 to \$16.75 and options for 34,509 shares were cancelled. At December 31, 1978, options for 351,302 shares were outstanding at prices ranging from \$5.75 to \$24.00 and aggregating \$5,694,000. Options for 59,655 shares at prices ranging from \$7.25 to \$16.75 and aggregating \$795,000 became exercisable during 1978.

Under the employee stock purchase plan, eligible employees may elect to purchase shares of common stock at 85% of the lower of the fair market value of the stock at the beginning or end of a 12-month offering period. In July 1978, 60,411 shares were issued to participants at \$15.73 per share. At December 31, 1978, payroll deductions for the offering period ending June 30, 1979, amounted to \$710,000 and have been included in accounts payable in the accompanying consolidated balance sheets. At the beginning of this offering period, 85% of the fair market value was \$20.97 per share.

The proceeds received upon exercise of stock options or in connection with stock purchase plans are credited to common stock. No compensation amounts have been reflected in the income statement with respect to stock options or stock purchase plans.

6. INCOME TAXES

Income tax expense for 1978 and 1977 consists of the following components:

	<u>U.S. Federal</u>	<u>State</u>	<u>Total</u>
	<u>(In thousands)</u>		
Year Ended December 31, 1978:			
Current portion	\$5,176	\$1,281	\$6,457
Increase in deferred tax credits	1,454	—	1,454
Deferred tax expense	864	157	1,021
Prepaid tax expense	<u>(129)</u>	<u>(3)</u>	<u>(132)</u>
	<u>\$7,365</u>	<u>\$1,435</u>	<u>\$8,800</u>
Year Ended December 31, 1977:			
Current portion	\$5,732	\$1,226	\$6,958
Increase in deferred tax credits	200	—	200
Deferred tax expense and reversal of prepaid tax expense	<u>518</u>	<u>124</u>	<u>642</u>
	<u>\$6,450</u>	<u>\$1,350</u>	<u>\$7,800</u>

Prepaid and deferred tax expenses result from timing differences in the recognition of certain costs and expenses for financial and tax reporting purposes, primarily depreciation. The Company accounts for investment tax credits using the deferral method. Deferred tax credits represent investment tax credits reported for tax purposes in excess of investment credits recognized for financial reporting purposes.

Deferred income taxes and credits in the accompanying consolidated balance sheets are comprised of the following:

	<u>1978</u>	<u>1977</u>
	<u>(In thousands)</u>	
Deferred income taxes	\$2,447	\$1,141
Deferred investment tax credits	<u>3,504</u>	<u>2,050</u>
	<u>\$5,951</u>	<u>\$3,191</u>

The Federal income tax provision for 1978 and 1977 differs from the amount computed by applying the statutory rates to income before taxes, primarily because of investment tax credits of \$944,000 in 1978 and \$540,000 in 1977.

During 1978, the Company resolved all issues resulting from an examination by the Internal Revenue Service of the federal income tax returns of Tymshare, Inc. and its subsidiary Tymshare East, Inc. for the years 1973 and 1974. The resolution of these issues had no significant effect on the Company's financial statements.

7. EARNINGS PER SHARE

Earnings per share have been computed based on the average number of common shares and common equivalent shares (stock options, warrants, and employee stock purchase plans) outstanding during each period. The average number of shares used in the computation was 4,590,000 in 1978 and 4,409,000 in 1977. Earnings per share assuming full dilution are substantially the same as earnings per share shown.

8. QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

	<u>First</u>	<u>Second</u>	<u>Third</u>	<u>Fourth</u>	<u>Total</u>
	(In thousands, except earnings per share)				
Revenues:					
1978	\$38,076	\$36,605	\$35,724	\$39,154	\$149,559
1977	<u>26,235</u>	<u>23,747</u>	<u>22,027</u>	<u>29,165</u>	<u>101,174</u>
Income before taxes:					
1978	\$ 6,611	\$ 4,996	\$ 4,041	\$ 3,745	\$ 19,394
1977	<u>5,321</u>	<u>4,427</u>	<u>3,475</u>	<u>2,585</u>	<u>15,808</u>
Net income:					
1978	\$ 3,361	\$ 2,646	\$ 2,261	\$ 2,325	\$ 10,594
1977	<u>2,621</u>	<u>2,227</u>	<u>1,775</u>	<u>1,385</u>	<u>8,008</u>
Earnings per share:					
1978	\$.75	\$.58	\$.48	\$.50	\$ 2.31
1977	<u>.60</u>	<u>.51</u>	<u>.40</u>	<u>.31</u>	<u>1.82</u>

As discussed in Note 2, the Company acquired certain assets and assumed certain liabilities of WSBA in October, 1977. The results of the acquired operations are included in the consolidated results of operations from October 1, 1977. Revenues from the acquired operations were approximately \$6,100,000 for the fourth quarter of 1977 and \$5,500,000, \$6,300,000, \$6,500,000 and \$6,900,000 for the 1978 quarters, with no significant effect on net income.

During 1978, the Company acquired Autotax, Inc. and Medical Information, Inc. The results of these acquired operations are included in the consolidated results of operations from July 1, 1978. If these acquisitions had taken place at the beginning of 1977, the effect upon the above quarterly financial information would have been insignificant.

Auditors' Report**To the Shareholders and the Board of Directors of Tymshare, Inc.:**

We have examined the consolidated balance sheets of Tymshare, Inc. (a California corporation) and subsidiaries as of December 31, 1978 and 1977, and the related consolidated statements of income, shareholders' investment, and changes in financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of Tymshare, Inc. and subsidiaries as of December 31, 1978 and 1977, and the results of their operations and changes in their financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis after giving retroactive effect to the change (with which we concur) in the method of accounting for lease transactions which had been entered into prior to January 1, 1977, as explained in Note 4 to the consolidated financial statements.

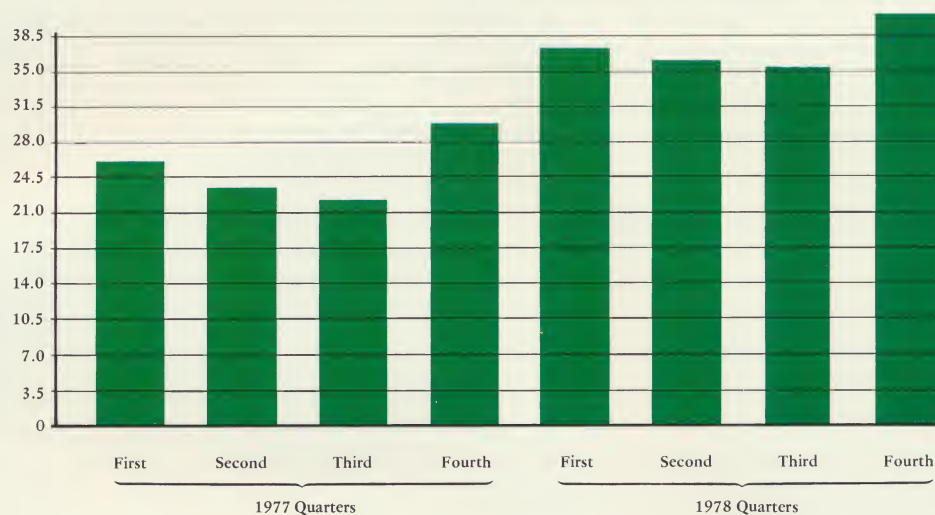
Arthur Andersen & Co.

San Jose, California
February 21, 1979

1978 and 1977 Quarterly Highlights

The following consolidated financial information is unaudited.

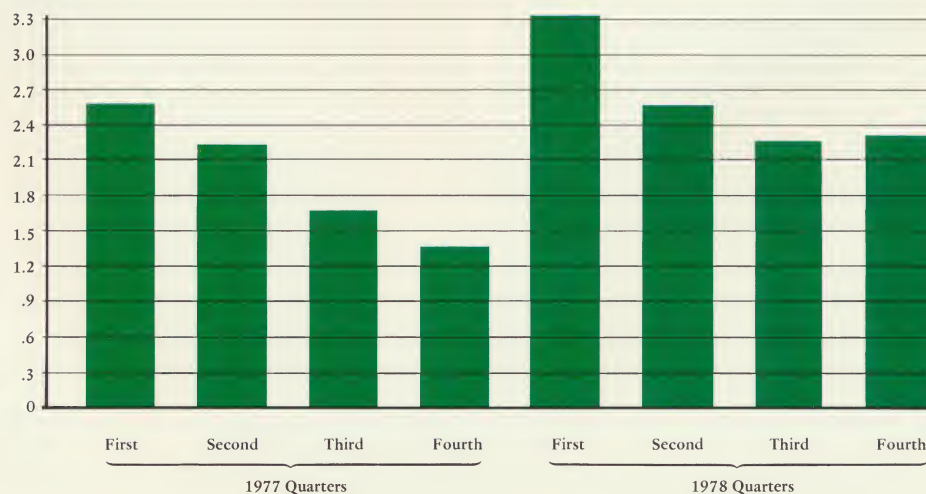
Revenue
*in millions
of dollars*



Year	Quarter	Revenue	Income		Income Margin	
			Before Taxes	Net	Before Taxes	Net
(In thousands)						
1977	First	\$26,235	\$5,321	\$2,621	20.2%	10.0%
	Second	23,747	4,427	2,227	18.6	9.4
	Third	22,027	3,475	1,775	15.8	8.1
	Fourth	29,165	2,585	1,385	8.9	4.7
1978	First	38,076	6,611	3,361	17.4	8.8
	Second	36,605	4,996	2,646	13.6	7.2
	Third	35,724	4,041	2,261	11.3	6.3
	Fourth	39,154	3,745	2,325	9.6	5.9

See Notes 2 and 8 to Consolidated Financial Statements for related information on the effect of acquisitions in 1977 and 1978. See Management's Discussion and Analysis of the Consolidated Summary of Operations, Page 27, for information relating to Income Margins.

Net Income
*in millions
of dollars*



Five-Year Consolidated Summary of Operations

	Year Ended December 31,				
	1978	1977	1976	1975	1974
	(In thousands, except earnings per share)				
Revenue from services and sales	<u>\$149,559</u>	<u>\$101,174</u>	<u>\$ 81,837</u>	<u>\$64,412</u>	<u>\$ 52,602</u>
Costs and expenses:					
Cost of revenue and operating expenses	128,241	84,671	68,278	54,406	45,405
Interest	<u>1,924</u>	<u>695</u>	<u>396</u>	<u>148</u>	<u>487</u>
	<u>130,165</u>	<u>85,366</u>	<u>68,674</u>	<u>54,554</u>	<u>45,892</u>
Income before provision for income taxes	19,394	15,808	13,163	9,858	6,710
Provision for income taxes	<u>8,800</u>	<u>7,800</u>	<u>6,450</u>	<u>4,889</u>	<u>3,276</u>
Income before extraordinary items	10,594	8,008	6,713	4,969	3,434
Extraordinary items —Primarily federal income tax reduction from carryforward of prior years' losses	<u>—</u>	<u>—</u>	<u>—</u>	<u>125</u>	<u>204</u>
Net income	<u>\$ 10,594</u>	<u>\$ 8,008</u>	<u>\$ 6,713</u>	<u>\$ 5,094</u>	<u>\$ 3,638</u>
Earnings per share:					
Income before extraordinary items	\$ 2.31	\$ 1.82	\$ 1.55	\$ 1.19	\$.86
Extraordinary items	<u>—</u>	<u>—</u>	<u>—</u>	<u>.03</u>	<u>.05</u>
Net income	<u>\$ 2.31</u>	<u>\$ 1.82</u>	<u>\$ 1.55</u>	<u>\$ 1.22</u>	<u>\$.91</u>
Average shares used to compute earnings per share	<u>4,590</u>	<u>4,409</u>	<u>4,337</u>	<u>4,159</u>	<u>3,999</u>

Management's Discussion and Analysis of the Consolidated Summary of Operations

General

The consolidated summary of operations for Tymshare, Inc. and subsidiaries shows increasing revenue and income from the prior year for each year of the five year period shown. Management believes that the major factors contributing to such growth were: (1) continued diversification of the Company's capabilities and services, (2) greater penetration of the Company's products and services within established markets and into new industries, (3) geographic expansion of the data communications network and commencement in 1977 of common carrier network services, (4) the addition of new computer systems and the enhancement of installed systems, and (5) certain economies of scale.

1978 Compared With 1977

Revenues for 1978 increased by approximately \$48.4 million (48%) compared with 1977. The results for 1978 include the full year of operations of Tymshare Transaction Services (TTS), the credit card processing operations acquired from Western States Bankcard Association in October 1977, which contributed approximately \$25.2 million in revenues for 1978 compared with \$6.1 million in revenues contributed in the fourth quarter of 1977, with no significant effect upon net income in 1978 or 1977. Excluding the revenues from TTS for both years, 1978 revenues grew by \$29.3 million (31%). Management attributes such increase principally to continued internal growth and market acceptance of its services and products and to the

increase in revenues from Tymnet's network services.

The total cost of revenue and operating expenses for 1978, excluding interest, increased by approximately \$43.6 million (51%) compared with 1977, producing an operating profit margin of 14.3% of revenue as compared with 16.3% in 1977. The operations of TTS (which impacted all of 1978 but only the fourth quarter of 1977) did not contribute to net income, and consequently reduced the 1978 operating profit margins. The remaining increase in costs was primarily due to the corresponding increase in revenues and, excluding the results of TTS, operating profit margins remained approximately the same for 1978 and 1977.

The increase in interest expense (net) from approximately \$695,000 in 1977 to \$1,924,000 in 1978 was primarily associated with the WSBA acquisition, increases in the prevailing prime interest rate (see Note 3 to Consolidated Financial Statements), and borrowings for the purchase of additional computer and communications equipment.

1977 Compared With 1976

Revenues for 1977 increased by approximately \$19.3 million (24%) compared with 1976. In October 1977, the Company acquired the operations of Western States Bankcard Association (WSBA) and accounted for the acquisition as a purchase.

Revenues from the acquired operations from October 1, 1977 to the end of the year were approximately \$6.1 million, with no significant effect on net income. Exclusive of the revenues from WSBA, revenues grew by \$13.2 million (16%), which management attributes principally to the continued diversification and market penetration of its services and products.

Total cost of revenue and operating expenses, excluding interest, increased by approximately \$16.4 million (24%) compared with 1976, producing an operating profit margin of 16.3% of revenue as compared with 16.6% in 1976. The increase in costs is primarily the result of the corresponding increase in revenue and generally conforms to the pattern of prior years. The WSBA acquisition, however, did not contribute significantly to net income, and operational start up costs associated with the Company's joint ventures in Japan and West Germany also affected the 1977 profit margins.

The increase in interest expense (net) from approximately \$400,000 in 1976 to approximately \$695,000 in 1977 was primarily due to the additional debt incurred for transactions involving the WSBA acquisition, and the borrowings made in late 1976 to finance the expansion of foreign interests and the purchase of additional computer equipment.

Board of Directors

T. J. O'ROURKE
President and
Chairman of the Board,
Tymshare, Inc.

MAX B. E. CLARKSON
Dean of Faculty of
Management Studies,
University of Toronto

ANTHONY M. LAMPORT
First Vice President,
Drexel Burnham Lambert,
Incorporated,
Investment Bankers

J. FRANK LEACH
President and
Chief Executive Officer
Arcata Corporation

ROGER L. MOSHER
Partner,
Mosher, Pooley, Sullivan
& Hendren
Attorneys-at-Law

GEORGE QUIST
Partner,
Hambrecht & Quist,
Investment Bankers

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Chairman of the Board

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Group Vice President

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Vice President and Treasurer

ALDEN R. HEINTZ
Vice President

WARREN F. PRINCE
Group Vice President

LASZLO RAKOCZI
Group Vice President

Audit Committee

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Director,
Dean of Faculty of
Management Studies,
University of Toronto

ANTHONY M. LAMPORT
Director,
First Vice President,
Drexel Burnham Lambert,
Incorporated

General Legal Counsel

Wilson, Sonsini, Goodrich
& Rosati
Palo Alto, California

Mosher, Pooley, Sullivan
& Hendren
Palo Alto, California

Auditors

Arthur Andersen & Co.,
San Jose, Calif.

Registrar and Transfer Agent

Bank of America N.T. & S.A.,
San Francisco, California

Stock Symbol

Tymshare stock is traded on the
New York Stock Exchange,
symbol TYM

Subsidiary/Division Senior Management**Finance Division**

HENRY BLANKENHEIM
Vice President
Operating Accounting

Technical Services Group

ANN HARDY
Vice President
Applications Products Division

GEORGE VOSATKA
Vice President
Equipment Support Division

**Financial and Network
Systems Group**

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President
Tymnet, Inc.

GEORGE SCHINDLER
President
Tymshare Transaction
Services, Inc.

ERNIE PORCELLI
Vice President
Data Network Division

Computer Services Group

WALTER EISSMANN
Vice President
Marketing Services Division

BERT NOVAK
Vice President
Computer Operations Division

ROBERT L. SCHWARTZ
Vice President
Information Services Division

Market Prices of Common Stock

Tymshare's common stock was traded in the over-the-counter market until June 24, 1977, when it began trading on the New York Stock Exchange. As reported by NASDAQ, the high and low bid prices of Tymshare's common stock in the over-the-counter market from January through June 23, 1977 are shown below, as well as the range of closing prices on the New York Stock Exchange from June 24, 1977 through the first quarter of 1979:

O-T-C		
	High Bid	Low Bid
1977		
First quarter	19½	14
Second quarter (to June 23)	17¾	15½
NYSE		
	High	Low
1977		
Second quarter (from June 24)	19	18⅛
Third quarter	23⅛	18½
Fourth quarter	23⅛	17⅞
1978		
First quarter	22⅞	18⅛
Second quarter	27⅞	19
Third quarter	33⅛	24¾
Fourth quarter	29¼	22⅛
1979		
First quarter	40½	28⅞

These quotations do not include retail mark-up, mark-down, or commission, and may not represent actual transactions. The Company has never paid dividends.

Shareholders are entitled to receive, without charge and upon written request, a copy of the Company's Form 10-K Report for the year ended December 31, 1978, which has been filed with the Securities and Exchange Commission.

Address requests to:
Edward J. Field,
Vice President and Treasurer,
Tymshare Corporate
Headquarters.



Corporate Headquarters
20705 Valley Green Drive
Cupertino, Calif. 95014
408/446-6000

Sales offices in most major U.S. cities

INTERNATIONAL AFFILIATES

Belgium

CEGI-Tymshare
Brussels, Belgium

England

Tymshare U.K., Ltd.
London, England

France

CEGI-Tymshare
Paris, France

Japan

Kokusai Tymshare, Ltd.
Tokyo, Japan

The Netherlands

CEGI-Tymshare
The Hague, Netherlands

West Germany

Taylorix-Tymshare GmbH
Frankfurt, West Germany